were present in a completely commingled or blended state at the time and place that the harm or risk of harm occurred, and the commingled product caused plaintiff's injury, each refiner or manufacturer is deemed to have caused the harm.⁷¹

In addition, "[a] defendant must be able to exculpate itself by proving that its product was not present at the relevant time or in the relevant place, and therefore could not have been part of the commingled or blended product."⁷²

The commingled product theory lies somewhere between market share and concurrent wrongdoing. The similar to concurrent wrongdoing — a theory that allows multiple tortfeasors to be held jointly and severally liable when each tortfeasor's independent actions combine to produce the same wrong — because it addresses a situation in which multiple defendants have contributed to an indivisible injury. It is similar to market share in that it shifts the burden to defendants to exculpate themselves from liability.

The theory is different from market share liability, however, in an

⁷¹ In re MTBE, 447 F. Supp. 2d at 301.

Id. In fashioning the commingled product theory, I also stated that liability is several only and is apportioned by proof of a defendant's share of the market at the time of the injury. See id. The parties have not addressed the issue of apportionment in their briefs, or who bears the burden of proof on this issue, and it is therefore premature to discuss it here.

⁷³ See In re MTBE, 379 F. Supp. 2d at 377.

important way. Market share liability was developed in the context of plaintiffs' inability to identify which manufacturer had produced the defective product – diethylstilbestrol ("DES") pills. Each plaintiff in the DES cases had ingested pills that were manufactured by only one defendant, but no one could determine which of a small number of manufacturers made those exact pills. When holding all manufacturers of the generic pill liable under market share, courts recognized that all but one of them did *not* cause the plaintiff's injury.

Here, by contrast, because the gasoline that has contaminated plaintiffs' wells was undeniably the commingled product of numerous manufacturers, there is a good chance that many of the defendants held liable, if not the majority, actually *did* cause plaintiffs' injury. In this sense, the commingled product theory is closer to traditional causation than market share liability.

Based on the evidence described above, a reasonable jury could conclude that gasoline from "many refiners and manufacturers [was] present in a completely commingled or blended state at the time and place that the harm or risk of harm occurred," and therefore the manufacturer defendants could be held liable under the commingled product theory. Each defendant, of course, may offer

⁷⁴ *In re MTBE*, 447 F. Supp. 2d at 301.

evidence to exculpate itself from liability "by proving that its product was not present at the relevant time or in the relevant place."⁷⁵

Clarification as to the operation of the commingled product theory is required. *First*, the time that the risk of harm – the contamination of groundwater – occurred is an issue of fact for the jury. It is admittedly difficult to determine the date of groundwater contamination.⁷⁶ However, plaintiffs have presented sufficient evidence about the spills alleged to have caused contamination in each well and/or the dates MTBE was first detected in each well to allow a jury to estimate a range of time during which the contamination occurred.

Second, the place the harm or risk of harm occurred is the capture zone of each well, where the MTBE now contaminating the well must have first contaminated the groundwater. A reasonable jury could conclude that each defendant's gasoline was present within the well's capture zone even if the jury concludes that it cannot identify the source of the spill that caused the well's

Id. See individual defendants' exculpation motions addressed in Part IV.E *infra*.

See Phase I Expert Report of Charles H. Sosik, June 22, 2007 ("Sosik Report") at 2.

The parties dispute the boundaries of each well's capture zone. The jury will determine the scope of capture zones based on the evidence presented at trial.

contamination.⁷⁸ It is not necessary for plaintiffs or the jury to identify the particular spill(s) that caused contamination in a well for manufacturers to be liable under the commingled product theory, because identifying the source of a spill does not provide any additional information about the manufacturers of the gasoline contaminating the well.

Third, and finally, I have previously stated that alternative liability theories – particularly market share liability – should not be applied unless plaintiffs have no other remedy. If a jury determines under traditional causation principles that an identified tortfeasor caused the contamination in a well, I held that plaintiffs cannot pursue other tortfeasors with respect to that well under alternative liability theories. While this reasoning may apply to some claims (e.g., public or private nuisance), I now conclude that plaintiffs may pursue product liability or negligence claims against manufacturers for placing a

The fact that certain wells may have no identifiable source of contamination has long been understood in this litigation. Nevertheless, it is beyond cavil that some release of gasoline must have caused the MTBE contamination in these wells. As Sosik notes in his report, "[w]hile the source of the release cannot be identified with sufficient certainty, the MTBE in the well is not naturally occurring." *Id*.

See In re MTBE, 447 F. Supp. 2d at 304-05 ("If there is an identifiable defendant (or defendants) and plaintiffs can obtain a make-whole remedy from those parties, then there is no need to turn to an alternative theory of liability to pursue other possible tortfeasors.").

dangerous product into the stream of commerce, regardless of whether plaintiffs can identify a retailer whose leaking tank spilled gasoline into a well's capture zone.

This is true for several reasons. To begin with, negligence claims against manufacturers are distinct from negligence claims against the retailer who spilled gasoline – the manufacturer's breach would be distributing a dangerous product, or failing to provide warnings as to the use of a product, while the spiller's breach would be failing to prevent leaks on its property. Moreover, for product liability claims New York courts favor liability for entities higher in the chain of distribution, reasoning that "[m]anufacturers are in the best position to know when products are suitably designed and properly made, as well as to diffuse the cost of safety in design and production."80 Retailers and distributors, on the other hand, are often "innocent conduits in the sale of the product" and are held liable only because product liability is strict.⁸¹ Finally, because the commingled product theory is far closer to traditional causation principles than market share liability, the limitation on the use of market share as a method of proof is

⁸⁰ Godoy v. Alabaster of Miami, Inc., 754 N.Y.S.2d 301, 307 (2d Dep't 2003).

⁸¹ *Id.* at 305.

unnecessary.

Defendants also argue that plaintiffs should not be permitted to prove causation under an alternative theory of liability because the New York Oil Spill Fund ("the Fund") provides a complete remedy for injuries to all of plaintiffs' wells. I am not convinced that the Fund would, in fact, provide such a remedy. Although defendants compare the Fund to a compensation scheme created under the National Childhood Vaccine Injury Act of 1986, which was the basis for the New Jersey Supreme Court's decision that plaintiffs could not apply market share liability to recover for injuries allegedly resulting from a vaccination, 82 the two schemes are vastly different in purpose, scope, and policy. While the vaccine compensation scheme was intended to provide individuals with a substitute for tort remedies, the Fund is intended to provide resources to pay for the prompt cleanup of oil discharges by the state.83 Unlike the vaccine compensation scheme. a reimbursement claim to the Fund does not preclude the claimant from pursuing tort remedies. Furthermore, claims to the Fund have historically been for amounts

See Shackil v. Lederle Labs, 561 A.2d 511 (N.J. 1989).

See H. Carl McCall, New York State Comptroller, New York State's Oil Spill Fund, March 2001 ("McCall Report"), at I. While neither party cites this report, there is no reason to believe its information is inaccurate, and it is admissible as the report of a public agency documenting its activities under Federal Rule of Evidence 803(8)(A).

that are minuscule in relation to the damages plaintiffs seek here, averaging \$15,000 to \$20,000.⁸⁴ Because it is doubtful that the Fund would provide a complete remedy to plaintiffs, it does not preclude application of the commingled product theory to prove claims against manufacturers.

D. Liability of MTBE Manufacturers: Lyondell and Equistar

Lyondell and Equistar manufactured MTBE and sold it to various gasoline refiners to be blended into gasoline. Unlike other defendants in this action, they never refined, distributed, or marketed gasoline, nor did they own or operate gasoline retail stations. Lyondell and Equistar's summary judgment motion argues that because plaintiffs cannot identify the manufacturer of the MTBE contaminating any of the focus wells, their claims must fail. Although their arguments are similar to those made by gasoline refiners in the omnibus motions, the facts are slightly different and merit separate discussion.

Nevertheless, as discussed below, the commingled product theory applies to

See McCall Report at 6. The report also notes that the Fund has operated "in the red" for the past ten years and, because MTBE contamination in groundwater caused oil spill cleanup costs to rise dramatically, "the Fund faces the prospect of not having sufficient funding to complete MTBE cleanups or pay victims of MTBE spills." *Id.* at 10.

claims against Lyondell and Equistar,⁸⁵ and operates in the same way as it does for claims against gasoline refiners.

"All MTBE that is blended into gasoline is chemically the same, regardless of the manufacturer." This Court has recognized that MTBE "lacks a 'chemical signature' that would enable identification of the refinery or company that manufactured" it. 87

Evidence in the record establishes that Lyondell and Equistar sold MTBE to various refiners, including nearly all refiner defendants in this action, between 1979 and 2003.⁸⁸ Moreover, the evidence discussed above in section B

Because Lyondell and Equistar have not spilled gasoline, the claims against them are based only on the manufacture and negligent distribution of a dangerous product. Plaintiffs have stipulated to the dismissal of claims under the New York Navigation Law against Lyondell and Equistar.

Declaration of Plaintiffs' Expert Michael Grabowski, Ex. H to Declaration of Chad A. West ("West Decl.") in Support of Plaintiffs' Opposition to Defendants Lyondell Chemical Company's and Equistar Chemicals LP's Motion for Summary Judgment ("Lyondell Opp."), ¶ 2.

⁸⁷ *In re MTBE*, 379 F. Supp. 2d at 365.

See Various Defendants' Responses and Objections to Plaintiffs' First Set of Interrogatories Regarding Defendant Identification, Ex. B to Declaration of Jerry D. Bernstein in Support of Lyondell Motion for Summary Judgment ("Bernstein Decl."). The responses show sales to BP Products from 1993-1997 and 2000-2003; ConocoPhillips from 1997-2003; ExxonMobil from1986-1996 and 1998-2002; TMR Company (years not specified); El Paso Corporation and Coastal

supports an inference that most of these refiners placed gasoline in the Colonial Pipeline for distribution to the New York regional market.

Lyondell and Equistar point out that many other companies manufactured MTBE for blending into gasoline, including refiners. ⁸⁹ Once it is blended into gasoline that is commingled in the distribution system, however, MTBE from various producers also becomes commingled. Indeed, MTBE from various producers is probably commingled before it enters the distribution system, because each refiner appears to have blended MTBE from multiple producers into its gasoline.

Plaintiffs cannot prove, either through direct or circumstantial

Eagle Point Oil Company (years not specified); CITGO from 1987-2003; Amerada Hess in 1998 and 2001; Shell (years not specified); Koch Industries in 1996; Sunoco from 1995-2003; and Valero in 1989, 1993-1994, 1998, 2000, and 2003. *See id. See also* Declaration of Defendant Lyondell Chemical Company Pursuant to Case Management Order #4, Ex. I to West Decl. (listing refiners in Pennsylvania and New Jersey to which Lyondell sold MTBE).

See Local Rule 56.1 Statement in Support of Lyondell Mem. ¶ 3. Defendants state that refiners purchased MTBE from approximately two hundred seventy-five suppliers, but plaintiffs note that only twenty-seven to thirty-two major U.S. MTBE *producers* existed in the mid-1990's, and only twenty-three major U.S. producers existed in 2003. See id. ¶ 2; "MTBE.MTBE," Chemical Marketing Reporter, 247 n.14 (Apr. 3, 1995), Ex. J to West Decl.; Kirschner, Mark, "MTBE (Chemical Profile)," Chemical Market Reporter, 263.1 (Jan. 6, 2003): 27(1), Ex. K to West Decl.

evidence, that any particular molecules of MTBE contaminating their wells were manufactured by Lyondell or Equistar. A reasonable jury could conclude, however, that because refiners blended Lyondell and Equistar's MTBE into gasoline that was placed in the Colonial Pipeline or shipped to the New York Harbor, some of Lyondell or Equistar's MTBE was likely found in groundwater within the capture zones of various focus wells in Suffolk County. For this reason, under the commingled product theory Lyondell and Equistar can be held liable for the contamination in the wells, unless they are able to prove that their MTBE was not in the relevant place at the relevant time. Lyondell and Equistar's motion is therefore denied.

E. Individual Exculpation Motions

In addition to Lyondell, a handful of defendants – Crown, Getty,

Giant, Irving and Total – have filed individual summary judgment motions. The

parties have referred to these motions as "exculpation motions," presumably

referring to the fact that under the commingled product theory a defendant may

exculpate itself from liability.

Plaintiffs make two arguments in opposing these motions. Plaintiffs' first argument is that defendants have ignored "this Court's admonition that

individual defendants avoid making individual motions if the omnibus motion addresses the same issues." Plaintiffs are correct that many of defendants' arguments repeat those that are made in the omnibus motion, particularly about their liability as retailers. This is especially true of the motion filed by Getty, which is *only* being sued as a retailer. All of the issues raised by Getty are made in the omnibus motion. The other defendants make the same error when focusing on their liability as retailers of gasoline. I have resolved these issues in Part V of this opinion, which discusses the liability of retailers for spills of gasoline alleged to have contaminated plaintiffs' wells.

Plaintiffs' second argument is that defendants have ignored commingled product theory as it has been developed in this case. For example, Irving argues that "plaintiffs cannot meet their fundamental burden under New

Pl. Opp. to Getty Mem. at 1. *See also* Pl. Opp. to Crown Mem. at 2-4; Pl. Opp. to Giant Mem. at 2-3; Pl. Opp. to Irving Mem. at 1-2; Pl. Opp. to Total Mem. at 2-3.

On January 25, 2008, plaintiffs agreed to dismiss claims against Getty to the extent they are based on commingled product theory because they are not being sued as a refiner of gasoline.

Indeed, having reviewed the briefs, I agree that "Getty should not have submitted this motion at all," since Getty's arguments repeat those made in the omnibus motions. *Id.* at 1.n.1. I therefore grant Plaintiffs' request to strike Getty's individual motion for summary judgment.

York law of proving causation and product identification,"⁹³ while Total contends that it "is Plaintiffs' burden to prove causation."⁹⁴ Such arguments ignore the fact that under commingled product theory, the burden lies with the defendant to exculpate itself once plaintiffs have shown that the product was in a completely commingled or blended state at the time and place that the harm or risk of harm occurred. A defendant "must be able to exculpate itself by proving that its product was not present at the relevant time or in the relevant place, and therefore could not be part of the commingled or blended product."⁹⁵ In this case, defendants have ignored their burden and thus failed to present evidence that would permit a reasonable jury to find that their product was not present in either the Colonial pipeline or the New York Harbor.

Certain defendants, however, do argue that they must be dismissed on the product liability claim because their product "was not present at the relevant time . . . and therefore could not have been part of the commingled or blended

⁹³ Irving Mem. at 1.

Total Mem. at 1. See also Crown Mem. at 7 (arguing that plaintiffs "must have sufficient proof that an individual defendant's gasoline was 'a substantial factor in bring about the injury.") (quoting New York Pattern Jury Instructions–Civil § 2:70).

⁹⁵ In re MTBE, 447 F. Supp. 2d at 301.

product."⁹⁶ For example, Giant argues that it "should be granted summary judgment because it had not yet begun operations when the wells at issue in this case were allegedly contaminated with MTBE."⁹⁷ In particular, Giant did not begin operations until May 14, 2002.⁹⁸

Plaintiffs agree that Giant cannot be held liable for spills or releases of gasoline with MTBE that occurred prior to that date.⁹⁹ Plaintiffs note, however, that "Giant may still be liable for MTBE released and detected in wells after that date."¹⁰⁰ For example, one of the eighteen focus wells, Crystal Brook Hollow No. 3, began operating in 2004. Because MTBE manufactured or otherwise distributed by Giant could have contaminated this well, plaintiffs may use the commingled product theory to pursue Giant for damages resulting from contamination in that well.

The same reasoning applies to the other defendants as well. On the one hand, if the jury finds that the contamination of a particular well occurred

⁹⁶ *Id*.

Giant Mem. at 1.

⁹⁸ See id.

⁹⁹ See Pl. Opp. to Giant Mem. at 1.

¹⁰⁰ *Id*.

prior to the date the defendant entered the market, then that defendant may not be held liable as a matter of law. On the other hand, if the contamination of a particular well occurred after the defendant's product entered the market, then the jury must resolve whether that defendant is liable for damage to that well. Of course, such a determination will need to be made by the jury on a well-by-well basis given that the date of contamination is a fact-intensive question.

Finally, the individual defendants argue that they should not be liable because they manufactured a *de minimus* amount of MTBE or gasoline containing MTBE. Total claims that "the amount of gasoline containing MTBE [that Total] placed into pipelines that could reach the New York Harbor market represents an extremely small percentage of the total gasoline transported to that market," and Crown argues "MTBE gasoline delivered into New York Harbor from 1979 to 2003 is infinitesimal relative to the total amount of gasoline that [was] delivered to New York Harbor during that time." Harbor during that time."

Yet, there is no *de minimus* exception to liability under the commingled product theory. Defendants concede that their product was present in

Total Mem. at 7.

Crown Mem. at 2.

the Colonial pipeline or the New York Harbor at some point and thus their product commingled with gasoline that was delivered to Suffolk.¹⁰³ If a defendant supplied only a small amount of gasoline to the market, this should be reflected in the amount of damages assessed against that defendant.

The individual exculpation motions are therefore denied.

F. Proof of Claims Against Manufacturers Under Concert of Action Liability

Plaintiffs also argue that refiner defendants who are not implicated as a source of the spilled gasoline contaminating a particular well may still be vicariously liable for another defendant's actions causing contamination of that well under the concert of action theory. They assert that evidence regarding the operation of the gasoline distribution system, which requires companies to produce gasoline according to the same specifications, and lobbying activities by

See, e.g., Irving Mem. at 3 ("Between 1996 and 2003, Irving Oil imported a total of 130 shipments of gasoline containing MTBE to terminals in New York Harbor."); Crown Mem. at 3 ("Crown transported most of its gasoline via the Colonial Pipeline.")

Defendants contend that this argument, which was made in plaintiffs' supplemental briefing in opposition to summary judgment but not in their original opposition, is untimely and should not be entertained by the Court. I need not decide the issue of timeliness, however, because for the reasons discussed below plaintiffs' theory lacks an evidentiary foundation.

an industry association that may have concealed known risks associated with MTBE, establish that defendants acted in concert or pursuant to a tacit agreement.

To establish liability under concert of action, plaintiffs must show that: (1) each defendant acted tortiously; (2) defendants had an understanding, express or tacit, to participate in a common plan; and (3) at least one defendant committed a tortious act in furtherance of the plan that constitutes a tort. The alleged tortious act of each defendant is manufacturing and marketing a defective product, and one defendant's spill of gasoline causing contamination in a well constitutes a tort.

The New York Court of Appeals has held that parallel development and marketing of a product by various companies, in and of itself, does not constitute a common plan. Therefore, the mere fact that refiners all added MTBE to their gasoline in order to transport it as a commingled product through the pipeline system is not sufficient to prove concert of action.

A concerted effort by refiners to conceal known risks of MTBE from the government and the public, however, could constitute a common plan under

¹⁰⁵ See Rastelli v. Goodyear Tire & Rubber Co., 79 N.Y.2d 289, 295 (1992).

¹⁰⁶ See id.

this theory.¹⁰⁷ To support their claim, plaintiffs have submitted various internal memoranda and letters to the EPA from the "MTBE Committee,"¹⁰⁸ as well as several internal memoranda from Exxon in which an Exxon environmental specialist, Barbara Mickelson, describes the risk of groundwater contamination associated with increased use of MTBE in gasoline.¹⁰⁹

But plaintiffs have not identified any company, including any defendant in this action, as a member, funder or supporter of the MTBE

Committee. 110 Although all inferences must be drawn in favor of the non-moving

See City of New York v. Lead Paint Indus. Ass'n, 597 N.Y.S.2d 698, 700-01 (1st Dep't 1993) (declining to dismiss a claim based on concert of action liability where plaintiffs alleged that lead paint manufacturers and their trade association "coordinated their efforts to conceal the hazard, to mislead the public and the government as to that hazard, and to market and promote the use of the product despite their knowledge of the hazard").

See Various Letters and Memoranda from the MTBE Committee, Ex. G to Pl. Supp. Opp. to Def. I. Defendants contend that documents contained in this exhibit are inadmissible hearsay. As discussed below, plaintiffs do not offer any evidence supporting admissibility.

See Memoranda from B.J. Mickelson (dated August 23, 1984, April 19, 1985, and February 22, 1985), Ex. H to Pl. Supp. Opp. to Def. I. Defendants contend that this exhibit is inadmissible hearsay. However, the statement might be admissible as a party admission under Federal Rule of Evidence 801(d)(2)(D).

Plaintiffs could have ascertained the membership of the MTBE Committee during discovery. They have not done so, however, and their brief

party, the broadest inference to be drawn here is that the MTBE Committee was an industry association in which many oil refiners participated. Many of the remaining refiner defendants in this action are small companies, however. Irving Oil, for example, is a very large refiner but is based in Canada, and cannot be assumed to have been a member of the MTBE Committee. Giant could not have been a member because the company was formed in 2002, many years after the MTBE Committee made the statements at issue.

In addition, there is no evidence that ExxonMobil's knowledge of the risks posed by MTBE, as illustrated by the Mickelson memoranda, was shared with the MTBE Committee or other defendants in this action. Therefore, although the evidence indicates that Exxon knew about the dangers MTBE posed to groundwater and that an industry association represented to the government that there were no dangers involved in the use of MTBE in gasoline, it is not sufficient to support the conclusion that all refiner defendants participated in a common plan to conceal the risks of MTBE from the public.

V. LIABILITY OF RETAILERS FOR SPILLS AND SALE OF

glosses over this problem, stating only that "[b]oth gasoline refiners and manufacturers of neat MTBE act through trade associations to mislead and conceal the dangers from EPA and the public." Pl. Supp. Opp. to Def. I at 19.

GASOLINE CONTAINING MTBE

As explained above, a jury may hold the manufacturers and refiners liable for contamination in a well regardless of whether the spill that caused that contamination can be identified. Nonetheless, it remains important for plaintiffs to prove which spills caused the contamination as the spillers may be liable for negligence in failing to prevent leaks, and as retailers of gasoline containing MTBE, they may be jointly and severally liable with manufacturers for products liability claims. Further, only the spillers may be liable for the discharge of gasoline under the New York Navigation Law.¹¹¹ To prove that certain spills caused contamination in each well, plaintiffs rely largely on the report of their expert hydrogeologist, Charles Sosik. The expert report identifies a "capture"

There is no basis to hold manufacturers or refiners liable under the New York Navigation Law, N.Y. Nav. Law. § 181(1), which creates strict liability for "dischargers" of petroleum products, unless the manufacturer or refiner delivered product directly to a gas station or other facility that released gasoline and "was in a position to prevent the discharge or effect a cleanup." *State of New York v. Montayne*, 704 N.Y.S.2d 978, 978 (3d Dep't 1993). Accordingly, plaintiffs have dismissed all claims under the Navigation Law against the following defendants, none of which discharged gasoline from a gas station they owned, operated or directly supplied: Total, Irving Oil, Crown Central, Lyondell and Equistar, and Giant Yorktown. The only remaining defendants against whom plaintiffs assert Navigation Law claims are ExxonMobil, Gulf and Getty, each of which own, operate, or brand gas stations in Suffolk County where gasoline spills or leaks have occurred.

zone" for each well that encompasses all potential sources of contamination. The expert report also identifies certain retail stations as the sources of contamination for some, but not all, wells within a "reasonable degree of scientific certainty."

Sosik's expert report also contains information about each spill culled from government and private investigations of the spills. This information includes, *inter alia*, investigation reports detailing the circumstances of the release, remedial steps taken, and the directional flow of groundwater from a spill site toward the well.

Defendants concede that when plaintiffs' expert has identified a specific source of the contamination, a reasonable jury could find that this retailer was the cause of plaintiffs' injury. Of course, this does not mean that the jury must reach such a conclusion as defendants may present evidence at trial that refutes plaintiffs' argument. Nonetheless, on this summary judgment motion, the parties agree that plaintiffs' expert report creates a fact issue on the issue of causation that the jury must resolve.

With respect to any claim in which the expert does not identify a source of the contamination within a reasonable degree of scientific certainty, defendants argue that no reasonable jury could hold them liable. In contrast,

plaintiffs argue that non-expert information is still sufficient to support a jury's finding that a particular defendant caused the contamination of each well.

A reasonable jury could find that a particular retailer was the source of the contamination even if it was not specifically identified in the expert report. However, in some instances plaintiffs' non-expert information is insufficient to support a reasonable jury's verdict. The evidence regarding spills must be examined on a well-by-well basis. As explained below, the evidence is insufficient to support a finding by a reasonable jury that any known gasoline spills caused the contamination of three of the eighteen wells: (1) Horseblock Road Well No. 1, (2) Dare Road Well No. 1, and (3) Strathmore Court Well No. 1.

A. Releases From Underground Storage Tanks

Leaks from USTs are the primary sources of MTBE groundwater contamination. Before federal regulations of USTs went into effect in 1988, the EPA estimated that between ten and thirty-five percent of USTs were leaking. 113

See Advance Notice of Intent at 16,100-01; *In re MTBE Prods. Liab. Litig.*, 241 F.R.D. 185, 190 (S.D.N.Y. 2007).

Underground Storage Tanks: Technical Requirements, 53 Fed. Reg. 37,082, 37,086 (Sept. 23, 1988). The EPA estimate was based in part on a study of Suffolk County's UST program which indicated that twenty-six percent of the

"Until the mid-1980s, most USTs were made of bare steel, which is likely to corrode over time and allow UST contents to leak into the environment." Because of UST leaks and other spills, "[e]ach year approximately 9 million gallons of gasoline (the equivalent of a full supertanker) are released to the environment in the United States from leaks and spills, according to an estimate by the Alliance for Proper Gasoline Handling." 115

Federal regulations adopted in 1988 required substantial upgrades to most of the nation's USTs, most importantly the installation and maintenance of leak detection systems. However, for many reasons UST owners were slow to upgrade their tanks to comply with the regulations. Even after 2000, when an

county's six thousand storage tanks were leaking. See id.; E. Blaine Rawson, Are We Properly Controlling our LUSTs? A Review of the Problems with Underground Storage Tank Regulation, 40 Idaho L. Rev. 111, 117 (2003).

USEPA, "Overview of the Federal UST Program," http://www.epa.gov/OUST/overview.htm.

Advance Notice of Intent at 16,095.

⁴² U.S.C. § 6991b(c) directed the EPA to establish minimum requirements for leak detection systems, which are codified at 40 C.F.R. § 280.41.

See Underground Storage Tanks: Technical Requirements, 53 Fed. Reg. at 37,083 (recognizing that the universe of newly regulated systems was "immense" and "most of the facilities to be regulated are owned and operated by very small businesses, essentially 'Mom and Pop' enterprises not accustomed to dealing with complex regulatory requirements"). See also 2/1/07 Expert Report of

estimated eighty-nine percent of all USTs had received the mandated upgrades, as many as twenty-nine percent of USTs "were not being operated or maintained properly, increasing the risk of soil and groundwater contamination." ¹¹⁸

Without properly functioning leak detection systems, leaks from USTs are rarely noticed immediately because the gasoline contaminates soil beneath the surface and is not visible. Most UST leaks are only discovered well after they began, either when groundwater impact is reported or when excavation occurs for other reasons. Sosik notes that "[i]n the vast majority of cases the spill is discovered when gasoline impacted soil is encountered during the removal or upgrade of an underground storage tank. No one knows when the leak began, how long it had been leaking or the volume of fuel lost." ¹¹⁹

A recent study of MTBE contamination in Long Island illustrates the

Marcel Moreau, Ex. F. to Declaration of Robin Greenwald in Support of Plaintiffs' Memorandum of Law in Opposition to Def. II. ("Greenwald Decl.") at 43 (noting that while major oil companies began to upgrade UST systems in the 1980s, many small station owners did not upgrade until the late 1990s).

U.S. General Accounting Office, Pub. No. GAO-01-464, Environmental Protection: Improved Inspections and Enforcement Would Better Ensure the Safety of Underground Storage Tanks (May 4, 2001) at 2.

^{10/31/07} Rebuttal Report of Charles B. Sosik ("Sosik Rebuttal"), Ex. B to Greenwald Decl., at 7.

revalence of unreported leaks. The study, funded by the EPA, was designed to "better define the extent of MTBE contamination stemming from previously unidentified and/or unreported MTBE blended gasoline releases." Researchers inspected USTs at fifty-two gasoline retail stations in Nassau and Suffolk Counties that had no known prior releases of gasoline, and sampled groundwater at the stations for MTBE contamination. Thirty-two previously unknown gasoline releases were discovered at the fifty-two sites, meaning that over fifty percent of the sites had released gasoline without reporting it to the state. In addition, MTBE was found in groundwater at levels over the New York State maximum contaminant level ("MCL") of 10 ppb in thirty-four percent of stations in Suffolk County and fifty-three percent of stations in Nassau County.

USEPA MTBE Pilot Project – Objective 2: Investigate Potential Sources of MTBE Contamination on Long Island That Could Impact Water Supplies or Environmentally Sensitive Areas, January 2008, at ii. Again, neither party cites this study, but there is no reason to believe it is inaccurate. It is admissible as a report of a public agency. *See* Fed. R. Evid. 803(8)(A).

See USEPA MTBE Pilot Project.

¹²² See id. at 5.

See id. MTBE was found at levels below the MCL at a much higher percentage of the stations.

B. Migration of MTBE in Groundwater

MTBE gasoline released from USTs initially leaks into the soil surrounding the tank. Because MTBE is highly soluble in water, it quickly dissolves into groundwater when rain or other water passes through the contaminated soil. Once MTBE dissolves into the groundwater it migrates underground away from the release site:

As rain and other water move through the soil, water-soluble contaminants may be carried along with the moving water. The region of contamination created by such a water flow is called a "plume." Plumes vary in size and shape based on, *inter alia*, the terrain, the qualities of the local soil, and the speed and volume of water flowing through the soil. To determine the size and direction of a plume is to "delineate" the plume. Eventually, if a plume reaches an underground basin or other aquifer from which water is drawn, the water in that aquifer will become contaminated by the plume. Thus, any wells drilled into that aquifer would produce contaminated water. 124

According to Sosik, a key characteristic of plume development observed on Long Island is that "MTBE plumes continue to advance and do not stabilize or retreat." These plumes are generally narrow and travel far from a

¹²⁴ In re MTBE Prods. Liab. Litig., Nos. 04 Civ. 4968, 00 Civ. 1898, 2007 WL 700819, at *3 n. 30 (S.D.N.Y. Mar. 7, 2007).

Sosik Rebuttal at 2.

spill site due to the characteristics of the soil. Sosik states that in cases where there was either a large initial release or a continuous smaller release, the plume will remain attached to the spill site, whereas contamination stemming from older, smaller volume releases will travel as a detached plume. In almost all cases a detached plume will go undetected until it impacts a private or public supply well or is accidentally discovered in a monitoring well installed for some other purpose.

C. How Plaintiffs Identified Sources of Contamination

The key evidence supporting plaintiffs' claims is Sosik's expert report, which:

provide[s] opinions relating to the hydrogeology of the Long Island aquifer; the source(s) that have contributed and are contributing to the contamination of wells in the Suffolk County Water Authority drinking water well system; the timing of releases at the source areas and arrival at the wells; the extent of MTBE contamination in a given well; and the anticipated duration of the MTBE contamination in the well.¹²⁸

See id. Investigations in Long Island have identified MTBE plumes between six thousand and nine thousand feet long, and have also documented that the plumes will travel at a rate of 0.012 to 0.15 feet downward for each foot of distance traveled horizontally from the spill source. See Sosik Report at 6.

Sosik Rebuttal at 2.

Sosik Report at 1-2.

Phase I of Sosik's expert report addresses source attribution. Sosik gathered a list of all gasoline spills in Suffolk County that were reported to the New York State Department of Environmental Conservation ("NYSDEC"). He then analyzed each of the known spills that occurred within each well's "capture zone," and based on certain factors determined which of the gasoline releases are the source of MTBE in each of the eighteen wells.

One of the key factors in Sosik's analysis was whether the gasoline spilled at each site had contaminated the groundwater directly beneath the spill or elsewhere on the gasoline station property. Because only those spills where gasoline constituents entered the groundwater at the spill site could cause contamination in a well some distance away, Sosik "reviewed each file for confirmation of groundwater contamination with gasoline constituents and eliminated those which did not have such confirmation in documents contained in

Under Article 12 of the New York Navigation Law and the Petroleum Bulk Storage Regulations, 6 NYCRR § 613.8, all petroleum spills in New York must be reported to the NYSDEC within two hours of discovery, except spills where the quantity is known to be less than five gallons, the spill was contained and under control of the spiller, the spill has not and will not reach the State's water or any land, and the spill is cleaned up within two hours of discovery.

See Sosik Report at 10.

the files."¹³¹ At many spill sites, however, neither the gas station owners nor the NYSDEC investigators tested the groundwater to determine whether gasoline constituents had leached from gasoline-contaminated soil into the groundwater. Sosik therefore "had to eliminate suspect sites, sites with confirmed gasoline releases to the subsurface" because of the lack of thorough investigation and/or documentation by the responsible party and the NYSDEC at the time the spill was discovered. ¹³²

Factors Sosik considered when analyzing spills where testing confirmed the presence of gasoline constituents in groundwater at the site included:

BTEX¹³³ and MTBE concentrations within the source area and at the property line, the presence of free phase gasoline, the degree of residual contamination in soil, the nature and date of the release, if known, the direction of groundwater flow, the distance from the site to the wellfield, type, degree, start date and success of remedial actions both at the site and off-site, if implemented, the use or lack of control measures to prevent off-site migration

¹³¹ *Id*.

Sosik Rebuttal at 1.

Sosik explains that he looked for BTEX as well as MTBE because often site investigations did not test for MTBE before 1994. Another reason is that sometimes spills were reported long after they actually occurred, in which case all the MTBE may have already migrated off the site. See Sosik Report at 10.

of MTBE from the site and timing and correlation with MTBE detections in the test well and other wells within the wellfield or in the area.¹³⁴

Based on his analysis of the available information, Sosik concluded that certain spills were likely sources of contamination in nine of the eighteen focus wells, but opined that there was insufficient information for him to determine which gasoline spills were the source of MTBE in the remaining nine wells, although these wells are known to be contaminated with MTBE.¹³⁵

It is important to understand that Sosik eliminated many "suspect sites . . . with confirmed gasoline releases to the subsurface" only because there was no evidence allowing him to confirm that the spills had contaminated the groundwater. Sosik did not conclude that these spills had *not* caused contamination in the wells. Indeed, other information exists about these releases with respect to many of the factors Sosik evaluated for spills with confirmed groundwater contamination, such as "the degree of residual contamination in soil, the nature and date of the release, if known, the direction of groundwater flow, the

¹³⁴ *Id*.

¹³⁵ *See id.*

Sosik Rebuttal at 1.

distance from the site to the wellfield, type, degree, start date and success of remedial actions both at the site and off-site, if implemented."¹³⁷ These spills may still be the cause of contamination in some of the wells. Or, an undiscovered release may have caused the contamination, because most gasoline leaks occur beneath the ground and are discovered only when a site is excavated or investigated for some reason. ¹³⁸

Another fact important to the issues in these motions is when the gasoline releases occurred. Dates of releases are difficult to estimate for several reasons. Sosik notes that "releases of MTBE-containing gasoline are rarely a single, isolated release. Rather, releases at source sites typically involve more than one release over a period of time." Further, most releases are only discovered long after they began, so the date of the spill report to the NYSDEC does not reflect the date of the actual spill. Despite these uncertainties, Sosik estimates that "[i]n the vast majority of the identified source sites, the most likely

Sosik Report at 10.

See id. at 2 ("In almost all cases a detached plume [of MTBE] will go undetected until it impacts a private or public supply well or is accidentally discovered in a monitoring well installed for some other purpose than tracking the plume in question.").

¹³⁹ *Id*.

release date was in the mid to late eighties and early nineties."140

D. Plaintiffs' Evidence Linking Gasoline Spills to Well Contamination

Defendants acknowledge that Sosik's identification of spills at certain gas stations that caused or contributed to contamination in certain wells creates a fact issue with respect to whether the owner or operator of those gas stations caused contamination in the well. Accordingly, defendants whose gas stations are identified by Sosik as sources of contamination in certain wells do not seek summary judgment on claims arising from those wells. Rather, defendants argue that if plaintiffs' expert does not conclude that a defendant caused contamination in a well, neither could a reasonable jury.

Plaintiffs respond that additional evidence about other known gasoline releases within each well's capture zone – reports from spill investigations, information regarding the circumstances of the release, the

Sosik Rebuttal at 7.

Sosik traced MTBE in a well back to the gasoline spill where the MTBE was released into the environment, not all the way back to its manufacturer. When he identifies a "source" of MTBE in a well, he refers to the entity that released the gasoline. Therefore, other entities in the chain of supply that may be liable for contamination under product liability law are not named in Sosik's report.

directional flow of groundwater from a spill site toward the well – could support a jury's conclusion that these other gasoline releases caused or contributed to MTBE contamination in a well, even though Sosik did not reach that conclusion. The issue for the Court is therefore whether the totality of plaintiffs' evidence, without expert testimony, could support a jury finding that known gasoline releases within a well's capture zone caused contamination in a well.

Plaintiffs' argument rests on the methodology Sosik employed to reach the conclusions in his report. Although Sosik did not consider gasoline releases where the groundwater at the release site was never tested for gasoline contamination, he never concluded that these spills could *not* have caused or contributed to contamination in the nearby wells. Plaintiffs point out that he simply was unwilling to "confirm" a spill as a source of contamination without conclusive proof that gasoline constituents entered groundwater at the spill site.¹⁴²

There appears to be no reason why groundwater was tested at some spill sites but not at others.¹⁴³ But while the presence of gasoline constituents in

Pl. Supp. Opp. to Def. I. at 4.

Indeed, plaintiffs argue that often it was the responsibility of the defendants, who owned or branded the stations where spills occurred, to undertake groundwater testing and ensure that the spill was adequately contained, but that in many cases defendants failed to take such steps. They also argue that allowing

groundwater at a spill site helps prove that the spill contaminated a plaintiff's well water, because it shows that gasoline from that site has reached the area's groundwater, such evidence is not required to prove causation. Taken together, other circumstantial evidence about a gasoline release could support a finding that a particular spill of gasoline within a well's capture zone caused or contributed to MTBE contamination in that well. Such evidence includes the direction of groundwater flow from the spill site toward the well, the estimated volume of gasoline released, whether the release occurred on the ground's surface or beneath the ground, where it would be more likely to affect groundwater as it reached greater depths and/or as rainwater passed through the contaminated soil, the correlation between the estimated date of the release and the date of MTBE detections in the well, and whether and to what extent the spill was cleaned up.

Neither party supports its argument with any cases discussing summary judgment of groundwater contamination claims based on the failure to prove causation. Defendants quote a product liability case, *Healey v. Firestone*Tire & Rubber Co., stating that "circumstantial evidence . . . must establish that it

defendants to escape liability on the basis that no groundwater testing was performed at their properties after a spill would be fundamentally unfair, as it would reward defendants' irresponsible behavior and provide an incentive to other companies not to fully investigate spills.

is reasonably probable, not merely possible or evenly balanced, that the defendant was the source of the offending product."¹⁴⁴ The facts of that case, however, shed little light on this motion. This Court has found only a few cases on point, from other jurisdictions, but those cases show that courts have found various types of circumstantial evidence linking a defendant's spill to plaintiff's contamination sufficient to create an issue of material fact for a jury. Circumstantial evidence of causation has included the proximity of the alleged spill site to the plaintiff's well, the direction of groundwater flow, the directions of a gasoline leak

¹⁴⁴ 87 N.Y.2d 596, 601-02 (1996).

Healey concerned a tire rim that had explosively separated from a tire, seriously injuring the plaintiff. The trucking company where plaintiff worked had lost the particular rims believed to be the only ones that could have caused the accident, making it impossible for plaintiff to identify the manufacturer of the defective product. See id. at 602-04.

See, e.g., Masten v. Texas Co., 194 N.C. 540 (1927) (denying summary judgment where there was evidence that plaintiff's well was downhill from defendant's gasoline storage tank, groundwater flowed from the tank toward the well, an excavator had noticed gasoline stains in soil near the tank, and tank was the only one within a half-mile radius of the well).

See South Cent. Bell Telephone Co. v. Gaines Petroleum Co., 499 So. 2d 521, 523 (La. App. 2 Cir. 1986) (defendant's gas station was the nearest possible source of gasoline leak that damaged plaintiff's underground telephone wires).

See Wilson v. McLeod Oil Co., 327 N.C. 491, 521-22 (1990) (holding that evidence of groundwater flow from one suspected spill site toward plaintiffs'

such as odors or stained soil at the spill site¹⁴⁹ or unexplained financial losses or inventory discrepancies at the gas station.¹⁵⁰

Further, in many cases the issue at summary judgment is whether defendant actually released gasoline,¹⁵¹ whereas the spills at issue here are all known releases of gasoline documented by the NYSDEC, at sites from which Sosik has determined that groundwater flows toward a wellfield.¹⁵² The NYSEC

wells was sufficient to create issue of fact regarding causation, but testimony that groundwater in a lower aquifer could possibly flow in the other direction was not sufficient to support a finding that a different suspected spill site also contributed to contamination).

¹⁴⁹ See id. at 505-06; South Cent. Bell, 499 So. 2d at 523.

¹⁵⁰ See South Cent. Bell, 499 So. 2d at 523.

See Gerst v. Marshall, 549 N.W.2d 810 (Iowa 1996) (upholding grant of summary judgment for defendants when plaintiffs were unable to identify how or when a release of gasoline occurred). But see Malone v. Ware Oil Co., 534 N.E.2d 1003, 1005 (Ill. App. 4th Dist. 1989) (concluding "evidence was sufficient to support a jury determination that gasoline from defendant's service station had migrated underground to plaintiff's property and caused the contamination" despite plaintiff's expert's inability to identify any particular release of gasoline from the station, where monitoring wells downgradient of station revealed contamination).

Sosik also lists registered petroleum bulk storage ("PBS") tanks where no documented gasoline release has occurred; these are discussed below. In addition, several releases discussed in Sosik's report turned out to be downgradient from the well; as discussed below, these spills could not support a jury finding of causation.

investigation reports for each release generally document the amount of contaminated soil found beneath a UST, the date of its discovery, and remediation efforts, if any, taken to prevent offsite migration of gasoline constituents. Based on the totality of the evidence about a spill, a reasonable jury could conclude that at certain spills not identified by Sosik as contamination sources, MTBE from the gasoline found in the soil beneath a UST dissolved into groundwater and migrated toward the wellfields, and was later detected in well water.

However, plaintiffs' argument that fact issues exist with respect to *all* potential release sources listed in Sosik's report, including spills that Sosik eliminated as sources for various reasons and registered petroleum bulk storage ("PBS") facilities where no known release occurred, is too broad. Sosik concluded that some spills did *not* affect groundwater. As for certain PBS tanks, there is no evidence that a leak ever occurred. Therefore, the facts about each spill must be analyzed independently. When there is no evidence that a spill caused contamination in a given well, claims arising out of contamination in that well against the defendant who spilled the gasoline must be dismissed.¹⁵³

As discussed earlier, MTBE manufacturers and gasoline refiners may still be liable for contamination in the well under the commingled product theory. See supra Part IV. It is also important to point out that in some cases, because many oil companies are vertically integrated, a company may *not* be liable (as a

The analysis of each spill below employs the following standard: a reasonable jury could find that a spill within a well's capture zone caused or contributed to contamination in the well if the evidence shows that gasoline has contaminated soil beneath the surface of a spill site, allowing MTBE to reach the groundwater that flows toward the well. In most instances, Sosik identified the spills for which such evidence exists and opined that they caused the contamination. However, such evidence exists for certain spills that Sosik did not identify as causes of contamination.

Because other evidence about the spills exists, the fact that Sosik did not identify them as sources is not dispositive. Defendants' argument ignores the fact that the burden of proof in civil cases is only a preponderance of the evidence. Scientific conclusions often require a higher level of certainty, and Sosik's relatively cautious methodology requiring confirmed groundwater contamination reflects such a scientific "reluctance to quantify [his] judgments as to cause and effect." The tension between standards of certainty in science and in the law has

retailer) for spilling gasoline, but it may be liable as a refiner of gasoline for product liability and negligence claims.

Mattot v. Ward, 48 N.Y.2d 455, 460 (1979) (discussing formulation of medical expert's opinion regarding causation, and holding that the issue of causation was properly presented to the jury although the expert testified that he

been often noted, especially in cases where scientific evidence is necessary to prove causation. The courts have acknowledged that the law imposes liability even where "the cause and effect relationship . . . [can] not be established with scientific certainty. This is because "a court proceeding . . . is not simply a search for dispassionate truth. Unlike science, the law is focused on "resolving social problems [its] concern is whether tort and injury bear a close enough relationship to make it equitable to impose financial responsibility upon a defendant."

In addition, for most of the wells described below, the jury will could not say with certainty that car accident was sole cause of plaintiff's condition).

See, e.g., William Glaberson, "The Courts vs. Scientific Certainty," N.Y. Times, June 27, 1999, § 4 (Magazine), at 5 ("Science, which never stops searching for answers, has a high threshold for reaching conclusions: 95 percent certainty, some scientists say, is necessary to decide that one thing probably caused another. But the law must stop its search at the conclusion of each case. So juries in civil cases are told that a mere preponderance of the evidence – 51 percent – is enough certainty to render a verdict.").

¹⁵⁶ *Mattot*, 48 N.Y.2d at 462.

Justice Stephen Breyer, "Introduction," in *Federal Judicial Center Reference Manual on Scientific Evidence* (2d ed. 2000). Justice Breyer nevertheless stressed the importance of scientific accuracy to the just disposition of many types of cases.

¹⁵⁸ *Mattot*, 48 N.Y.2d at 460.

consider whether more than one spill caused or contributed to contamination in the well. If the jury finds that more than one spill contaminated a particular well, the retailer defendants may be held jointly and severally liable under the theory of concurrent wrongdoing.¹⁵⁹ Where a small number of defendants has been shown to have contributed to plaintiff's injury, "although the act of each, alone and of itself, might not have caused the entire injury," it is not fundamentally unfair to hold them jointly and severally liable.¹⁶⁰

To summarize, where plaintiffs present evidence that a defendant – or a gas station operating under a defendant's brand, or a station to which a defendant supplied gasoline – released gasoline within a well's capture zone, and the release was of a volume and depth making it likely that MTBE from the gasoline reached the groundwater flowing toward the well, a genuine issue of material fact exists as to whether that defendant caused MTBE contamination in the well. I now turn to the specific evidence regarding spills within the capture zone of each well.

Contamination in each well will generally be an indivisible injury, unless the evidence indicates that one spill caused an initial period of contamination and another spill caused a distinct, subsequent period of contamination.

¹⁶⁰ Id. (quoting Ravo v. Rogatnick, 70 N.Y.2d 305, 311 (1987)).

E. Well by Well Analysis¹⁶¹

This analysis includes both wells where Sosik identified certain spills as sources and wells where he concluded there was insufficient information to identify a source. It is important to highlight two points. *First*, MTBE has been detected in all of the wells at issue, even if the groundwater at the spill sites was never tested for MTBE. *Second*, because the majority of the spills occurred underground, they were almost never reported contemporaneously. Therefore, the date that a spill was reported to the NYSDEC is almost always significantly later than the date that the spill actually occurred, with the exception of several observable releases such as an overturned tanker truck or intentional dumping of gasoline into a drain.

1. Wheeler Road Well No. 1

MTBE was first detected in Wheeler Road Well No. 1 in 1989, and detections continued intermittently through 1994.¹⁶² From 1995 through the present, MTBE detections in the well have been continuous.¹⁶³

The facts in the well-by-well analysis are all drawn from Sosik's source attribution report. Defendants dispute many of Sosik's conclusions.

See Sosik Report at 11.

¹⁶³ *See id.*

Five reported spills occurred within the capture zone of Wheeler Road Well No. 1 at two locations, both relatively close to the well. One location is the site of a gas station operated at different times by Texaco-Shell and Citgo; the other site was an Exxon/Mobil station.

At the first location, a spill was reported in 1991 when gasoline was discharged above the ground and washed down a drywell. The NYSDEC files do not document any groundwater contamination as a result of the 1991 spill. A later spill report was made in 2002 when an investigation at the time of Texaco-Shell's sale of the property to Citgo revealed high levels of BTEX and MTBE in groundwater at the site. There are no records of attempts to remediate or contain the contamination. Finally, another spill was reported at the same site in 2004 when monitoring based on the 2002 detections indicated a new release of gasoline had occurred. There is no further discussion of the 2004 spill in Sosik's report.

¹⁶⁴ See id.

¹⁶⁵ See id.

¹⁶⁶ See id. at 12.

¹⁶⁷ See id.

¹⁶⁸ See id.

¹⁶⁹ See id.

Two spill reports from the Exxon/Mobil station in 1995 and 2001 appear to be related to the same discovery of contaminated soil, which initially occurred in 1995 during a site investigation.¹⁷⁰ Groundwater contamination was discovered during continuing investigations at the site in 1996 and 1999, at very high levels. Although some remediation occurred, it was not undertaken until 2001, and Sosik opined that it was not sufficient to prevent the migration of MTBE away from the site.¹⁷¹ Over two hundred tons of contaminated soil were eventually removed from the site in 2004.¹⁷²

In light of the confirmed MTBE contamination in groundwater at both spill sites, Sosik opines that spills at both sites have caused the MTBE contamination in the Wheeler Road well.¹⁷³ A reasonable jury could conclude that one, or both, of these spills caused the contamination of this well.

2. Virginia Avenue Well No. 1

MTBE was first detected in the Virginia Avenue well in 1993, but

¹⁷⁰ See id.

¹⁷¹ See id.

¹⁷² See id.

¹⁷³ *See id.* at 13.

was not detected again until 1997, after which detections continued intermittently through 2000.¹⁷⁴ Beginning in 2001, detections increased in frequency and magnitude and have continued through the present.¹⁷⁵

Seven spills have been reported to the NYSDEC in the vicinity of Virginia Avenue Well No. 1. Sosik reports that five of those spills, which occurred at a Sunoco station (reported in 1990), a former Rally/Amoco station (reported in 1986 and in 1996), and a Mobil station (reported in 1986), caused or contributed to the well's contamination. High levels of MTBE and/or BTEX were detected in the groundwater at each of these spill sites, either at the time the spill was reported or upon further investigation. Based on the groundwater contamination at the spill sites and the flow of groundwater from the sites toward the well, Sosik concluded that spills at the Sunoco, Rally/Amoco, and Mobil stations all caused or contributed to MTBE contamination in the Virginia Avenue well.

For various reasons, no reasonable jury could find that the two

¹⁷⁴ See id. at 14.

¹⁷⁵ See id.

¹⁷⁶ See id. at 15.

remaining spills contributed to the contamination. One spill occurred at a high school bus garage downgradient from the well, meaning MTBE would have been transported away from the well.¹⁷⁷ At the other spill site, a Shell station, an investigation revealed very low levels of MTBE in groundwater at the site, indicating insufficient levels of contamination to create a migrating plume.¹⁷⁸ Plaintiffs also offer evidence showing that Shell supplied over four million gallons of gasoline between 1998 and 2003 to a gas station referred to as the "Lake Grove S/S" at 2822 Route 25, where there are registered PBS tanks but no reported release.¹⁷⁹ Because there is no known release from this station, no reasonable jury could conclude that it caused the contamination in the Virginia Avenue well, and therefore Shell's delivery of gasoline to the station is immaterial.

Therefore, a reasonable jury could only find that those spills identified by Sosik – the Sunoco, Rally/Amoco, and Mobil station spills – could have caused the contamination in the Virginia Avenue well.

3. Kayron Drive Well No. 1

¹⁷⁷ See id. at 14.

¹⁷⁸ See id. at 15.

See Shell Delivery Spreadsheet, Ex. I to Greenwald Decl.

Low-level detections of MTBE have occurred regularly in the Kayron Drive well beginning in mid-2000.¹⁸⁰ Two gas stations about five hundred feet apart are located in the capture zone of the well. Four spills – two reported in 1984, one in 1990, and one in 1998 – have occurred at one site, which was a Chevron station, then a US Oil station, and eventually a Coastal station, and one spill was reported in 2002 at a Getty station.¹⁸¹

In 2005, a NYSDEC investigation of the Getty station spill revealed MTBE concentrations in groundwater as high as 130,000 ppb. The agency investigated MTBE migration by installing monitoring wells outside the station property, and determined that the station is a source of MTBE contamination in the area. Based on the NYSDEC investigation, Sosik concluded that the Getty station is the cause of contamination in Kayron Drive Well No. 1. Plaintiffs offer evidence showing that Shell sold 329,000 gallons of gasoline to this Getty station in 1980. While this evidence supports an inference that other companies sold

See Sosik Report at 40.

¹⁸¹ See id.

¹⁸² *See id.*

¹⁸³ See id. at 41.

See Shell Delivery Spreadsheet.